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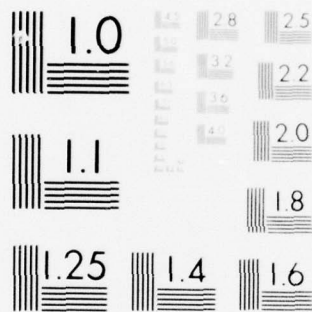
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) It is commonly accepted that an informal power structure parallels the formal one in most organizations. The investigators found no established methods outside of interviewing for measuring the informal structure. This study represented an effort to test some instruments and methodologies for this purpose. The results obtained are highly specific to the Air Security Squadron (Cont'd on reverse)		



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TECHNICAL REPORT NUMBER 101

AN ANALYSIS OF INFORMAL POWER  
IN A SECURITY POLICE SQUADRON

By

Arthur B. Sweney, Ph.D.  
and  
William Swenty

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ABSTRACT

It is commonly accepted that an informal power structure parallels the formal one in most organizations. The investigators found no established methods outside of interviewing for measuring the informal structure. This study represented an effort to test some instruments and methodologies for this purpose.

The results obtained are highly specific to the Air Security Squadron used for the demonstration and the individuals which comprised it at the time of testing. Highly dramatic departures from the official channels were found. The "inclusion to deletion" ratio was found to be an important summary statistic. The nature of the departures from established channels seemed to be related to perceptions of job capacity, decision making power, and cooperativeness. The persons from the formal power structure most frequently deleted were seen as competent but uncooperative.

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This task force was formed with the intent of measuring existing formal and informal power structures within the Security Police Squadron of the 381st Missile Wing at McConnell AFB. The squadron was subjected to two separate testing cycles. The data from the first cycle, completed in November, 1971, uncovered two areas of conflict.

1. Of the four operational flights, one evidenced substantially greater dissatisfaction with the existing power structure.
2. The men comprising the rank of Sergeant and below tended to view the existing power structure in much more negative terms than the NCO's above the rank of Sergeant.

These facts, when combined with other insights gained into the power structure of the 381st S. P. Squadron, revealed that the leadership function for at least one of the operational flights was somewhat ineffectual, and that first term airmen felt alienated from the existing power structure and impotent in decision making areas. The results of the seconding testing cycle show a much improved situation within the squadron.

The Perception Development Questionnaire (PDQ) is an instrument designed to measure the perceived job capability of squadron members. Each member is required to rate his fellow unit members in four areas; enthusiasm, ability, contribution, and cooperation. If he does not know a man well enough to rate him, he is instructed to give that man a zero rating. The variables of interest is the number of times a unit member is unknown by his peers and if he is known by them, how



is he viewed. As can be seen in Attachment One the Overhead Section received the fewest unknown ratings in both absolute and relative terms, while for the operational flights there appears to be no appreciable differences between them. The difference between the Overhead Section and the operational flights is probably not significant considering the fact that the sample size for the Overhead Section is only 20 compared to more than 30 for each of the operational flights. The smaller size of the Overhead Section would of course give each member a greater chance to be known by his peers. Also, the physical nature of the job itself would be much more conducive for the men of the Overhead Section to know each other. Their work environment is restricted to one building while the operational flights are subdivided and assigned to remote missile sites. It is highly probable that these subdivisions preclude the men from knowing each other to any great degree.

Attachment Two discloses that when the zero ratings are deleted the average capability score received by the members of the Overhead Section are much greater than those received by the members of the operational flights. Once again, however, these ratings are probably a function of the greater homogeneity existing within the Overhead Section. In comparisons between the operational flights, the enthusiasm rating of "B" flight appears to be slightly lower than for the other flights.

Attachment Three gives the zero ratings received by the Commander, the OIC of operations, the OIC of weapons systems, and the Superintendent. These ratings are based on the responses of the entire

squadron. The OIC of weapons systems received the largest number of unknown responses, however he had been in the squadron less than six months at the time of the survey.

Attachment Four shows the perceived job capability for the same four men with the zero ratings deleted. It is now seen that the OIC of weapons systems has the highest job capability of these men, even though he was the least well known. The OIC of operations has the next highest ratings with the Commander and the Superintendent being seen as somewhat lower. It is thus apparent that the two OIC's are perceived as being the most capable of the squadron's top management.

Attachments 5, 6, and 7 pertain to the Measure of Organizational Structure Questionnaire (MOS). This instrument attempts to measure and relate the individual's perception of the formal organization and his perception of the informal power structure. This test asks each squadron member to list in ascending order the three superiors he should go to if he has a job related or a personal problem. He is also asked to list the three squadron members he would prefer to go to with these problems. The first list is of course his perception of the formal chain of command (COC) and the second is his perception of who possesses power within the squadron.

The collected data fails to indicate any uniform perceived COC. That is, the perceived COC is different from flight to flight and from rank to rank. There are, however, numerous deviations between the preceived formal COC and the informal power structure.

As Attachment Five indicates the Overhead Section appears to be



the most satisfied with their COC and there is no apparant difference between the three operational flights. Attachment six shows the data analyzed according to the rank. While the largest number of deviations are for the rank of Airman First Class this rank also has the largest sample size and the average deviations for this rank is not substantially different from the other ranks. Even though the average deviations for the rank of Master Sergeant are greater than for the other ranks, the small sample size would preclude much generalization from this result. However, it may well be that those at this rank feel they may deviate some from the formal COC with impunity. These graphs would seem to indicate a direct relationship between rank and satisfaction with the formal COC.

Attachment seven gives the most often added and most often deleted positions. It is seen here that the Superintendent and the NCOIC of weapons systems are deleted somewhat equally as are the Commander and the OIC of operations. While the positions of OIC weapons systems and the First Sergeant were the most added these men have power by virtue of their positions. On the other hand, Technical Sergeant Walters and Staff Sergeant Thompson were added by men in flights other than their own indicating informal power, and Staff Sergeant Jack Smith, who has little formal power, was added by the men of his own flight.

Attachments 8 through 17 pertain to the Decision Making Questionnaire (DMQ). The purpose of this instrument is to measure the perceived informal power of each member of the squadron. The respondents were asked who within the organization would make the decisions in

various hypothetical situations. These situations were structured to fall into eight different factors: Factor 1, job related questions; Factor 2, administrative questions; Factor 3, outside activities; Factor 4, health and well-being; Factor 5, personal emergency; Factor 6, personal plans; Factor 7, performance appraisal; and Factor 8, organizational questions.

Attachments 8, 9, and 10 show the six positions which account for over 90% of the choices. The Commander, as shown in Attachment 8, is perceived to have the most power of the three officers with the men giving him the power to make decisions 29% of the time. This power is constant across all of the enlisted ranks. What is somewhat surprising is the large amount of power given to the OIC of operations by the Master Sergeants. The next most powerful position as shown in Attachment 9 is that of flight chief. However, as opposed to the Commander, his power has an inverse relationship with the rank of the respondent. Since all flight chiefs hold the rank of Tech Sergeant, the mean percentage rating of 32% was calculated based upon the ratings given by the Tech Sergeants and below. Attachment 9 also gives the number of times "self" was chosen to make the decision. There is clearly a direct relationship between rank and perceived self power.

The next most powerful person as shown in Attachment 10 is perceived to be the First Sergeant who holds the rank of Tech Sergeant. His mean percentage of 14% appears constant across ranks with the exception of the rating he receives from the Master Sergeants, which is lower but not surprisingly so considering his lower rank.

One of the available responses for the DMQ was "other". The intent here was to allow the respondent to indicate his choice of the squadron member whom he would choose to make the decision for a particular question. As shown in Attachment 11 the Training NCOIC received 45% of these responses. He is perceived as having the greatest power in variable 6 which is personal plans and he has the most influence in the Overhead Section. Attachment 12 gives the same information for the retention NCO who received 21% of the responses. His greatest perceived power is in the area concerning organizational questions and his power base is constant across sections.

Attachment 13 shows the percentage of times the total squadron chose the Commander, the OIC of operations, the First Sergeant, the flight chiefs, and "self" to make decisions in each of the eight areas. These five choices accounted for approximately 90% of the responses.

The Commander is chosen an average of 27% of the time. He is chosen significantly more often to make the decisions in the areas of personal emergency and organizational questions, and less often in the areas of health and well-being and performance appraisal.

The choices deferred to the OIC of operations is fairly constant across the variables with slightly more power in the area of performance appraisal which is given to him by the Overhead Section.

The First Sergeant is seen as being the most powerful in the areas concerning administration questions and personal emergencies. He is weakest in the areas of outside activities and health and well-being.

The flight chiefs are perceived to be the most effective in the areas of job related questions, outside activities, personal plans, and performance appraisal. They are weaker in the areas of administration questions and organizational questions.

The respondents chose themselves to answer administration questions and invariably seek help when personal emergencies arise.

When the four sections which make up the Security Police Squadron are analyzed in the above manner Attachments 14 through 17 result. The response patterns between the four sections are virtually identical with only minor exceptions. "B" flight gives the Commander slightly more power in job related problems, and both flights "A" and "B" give him more power to make decisions for administrative questions. The First Sergeant is perceived to have greater than average influence in the areas of personal plans by both "B" and "C" flights. The men of the Overhead section tend to retain power themselves in the area of health and well-being.

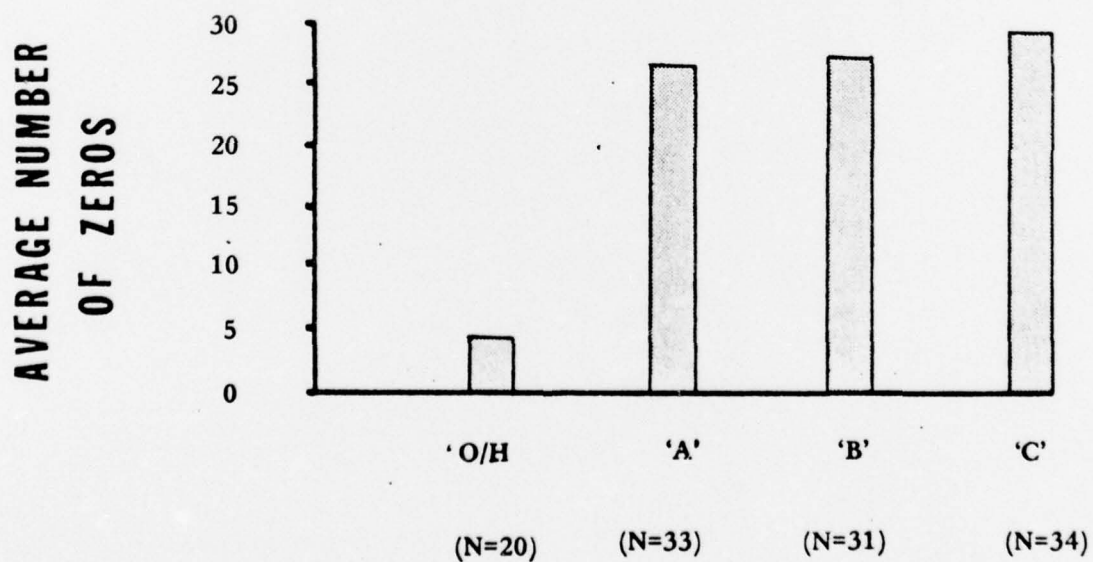
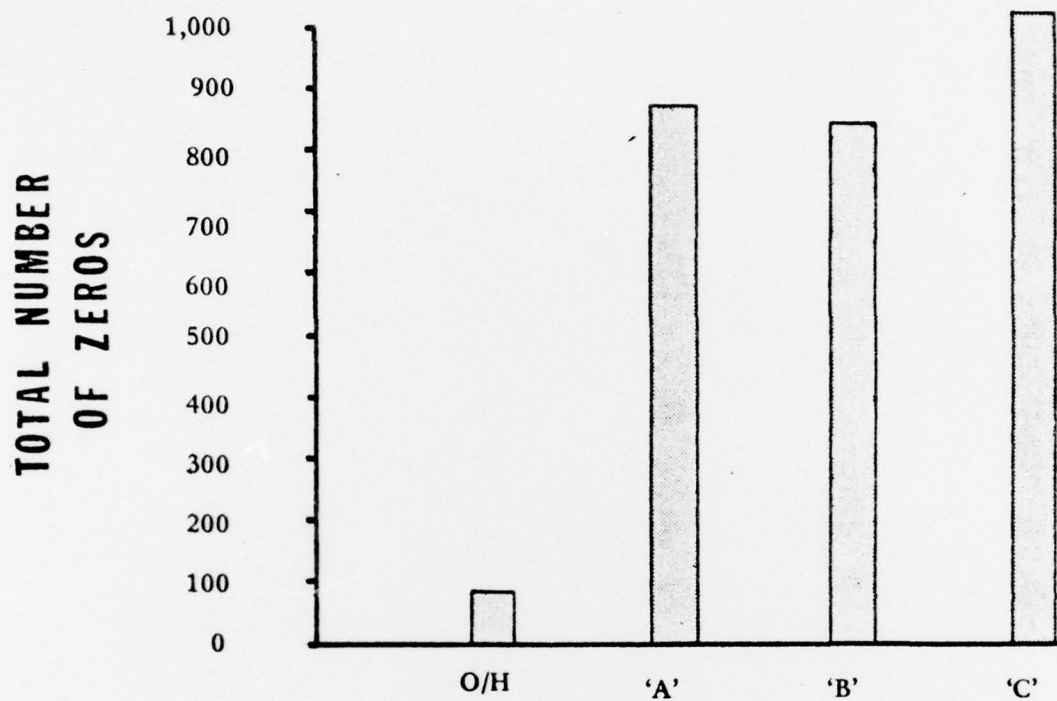
### Conclusions

Compared to last year the squadron this year is much more homogeneous and operational management appears to have improved. This has occurred in spite of the three fold increase in staffing. The Commander has uniform power across ranks while the OIC of operations receives most of his power from the rank of Master Sergeant. The OIC of weapons systems is perceived to have high job capability, but low decision making power.



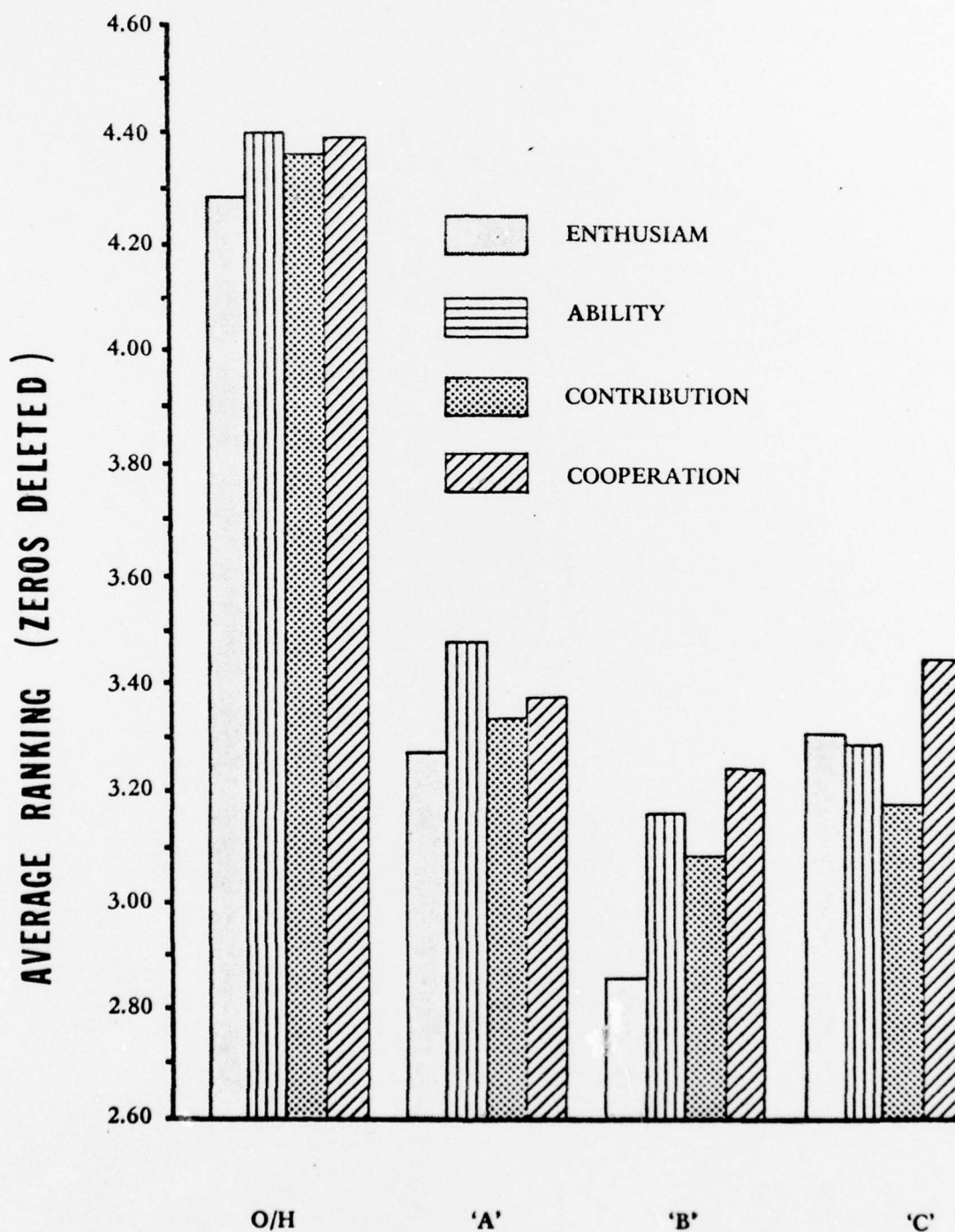
While the men are fairly well satisfied with the existing chain of command, there are several apparent informal power centers, viz., the Training NCOIC, the Retention NCO, the Flight Chief of "A" flight, Staff Sergeant Jack Smith, and Staff Sergeant Thompson.

## PERCEPTION OF JOB CAPABILITY (PDQ)

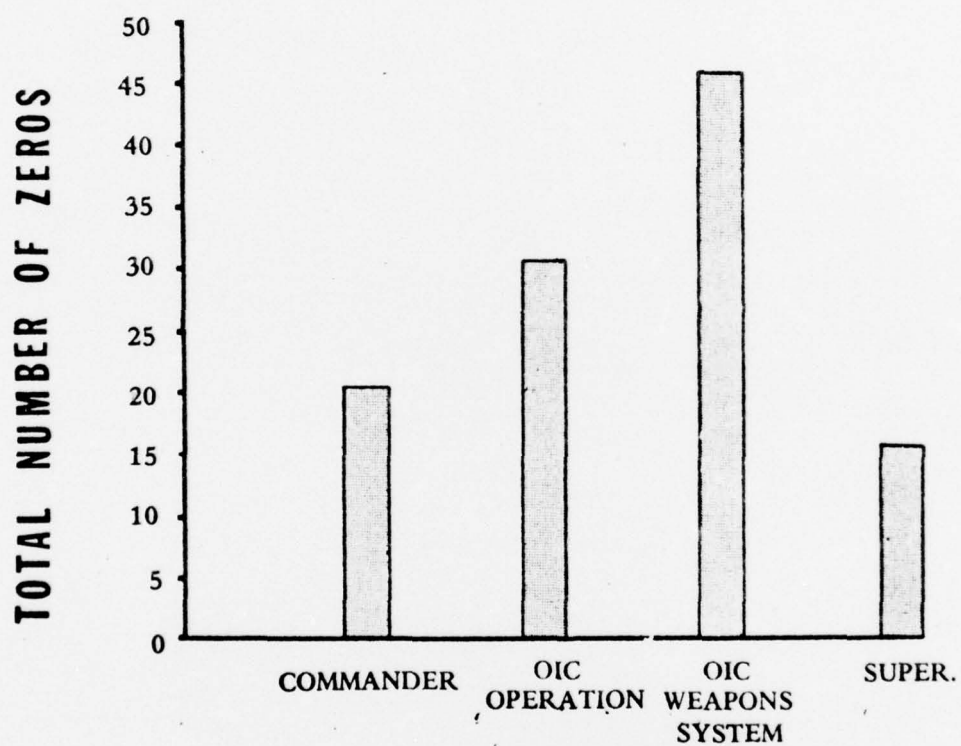




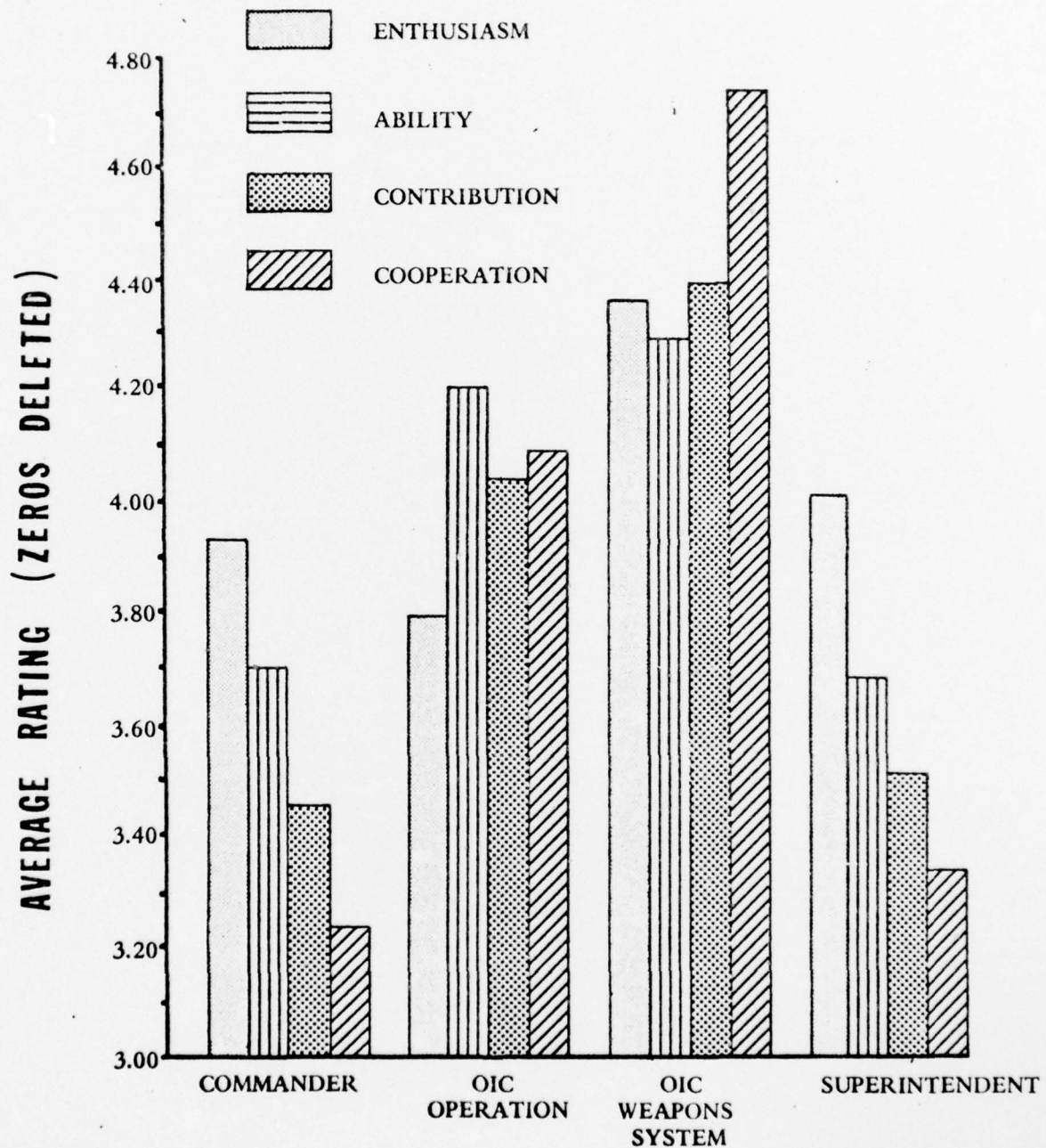
## PERCEPTION OF JOB CAPABILITY (PDQ)



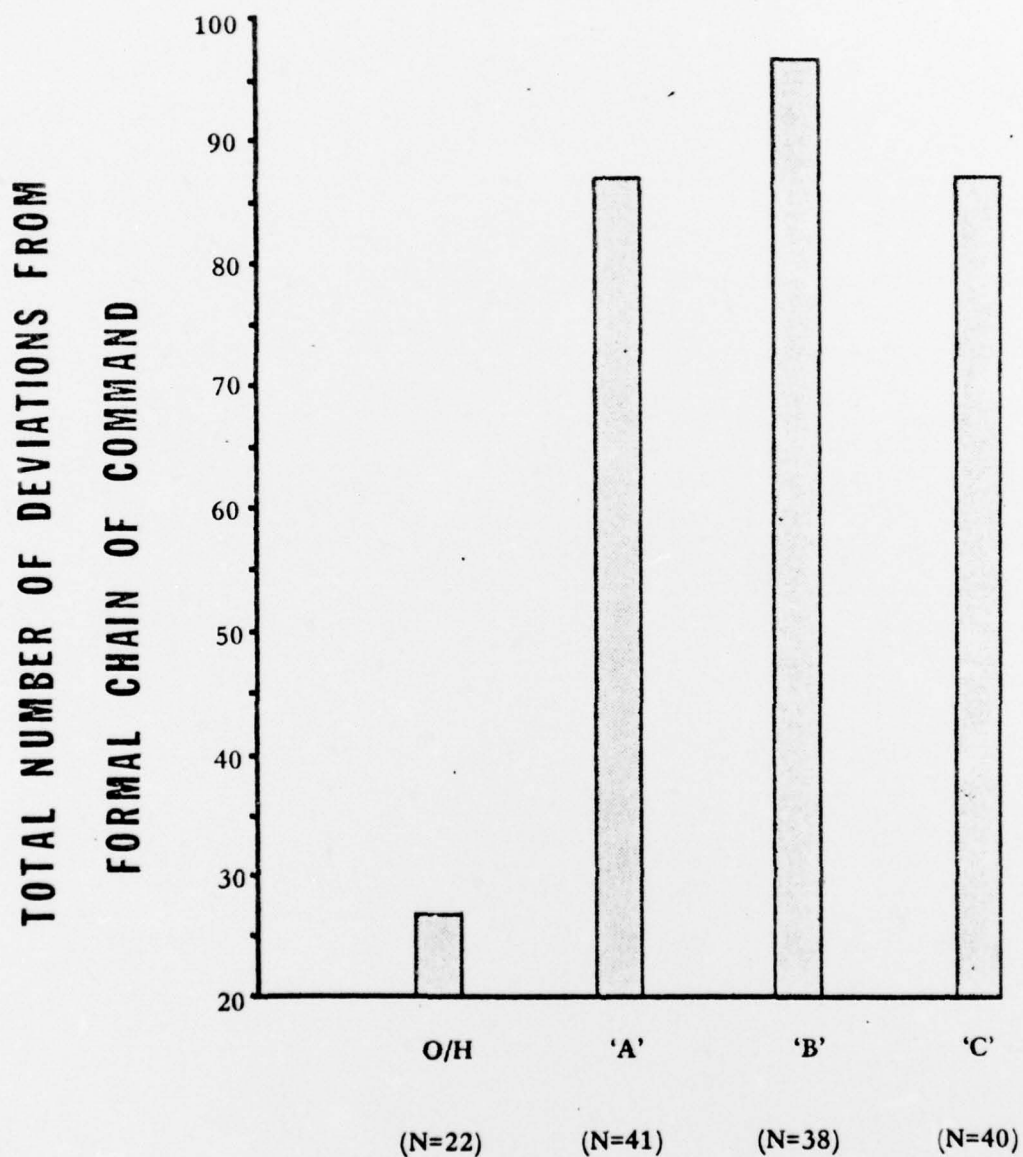
## PERCEPTION OF JOB CAPABILITY (PDQ)



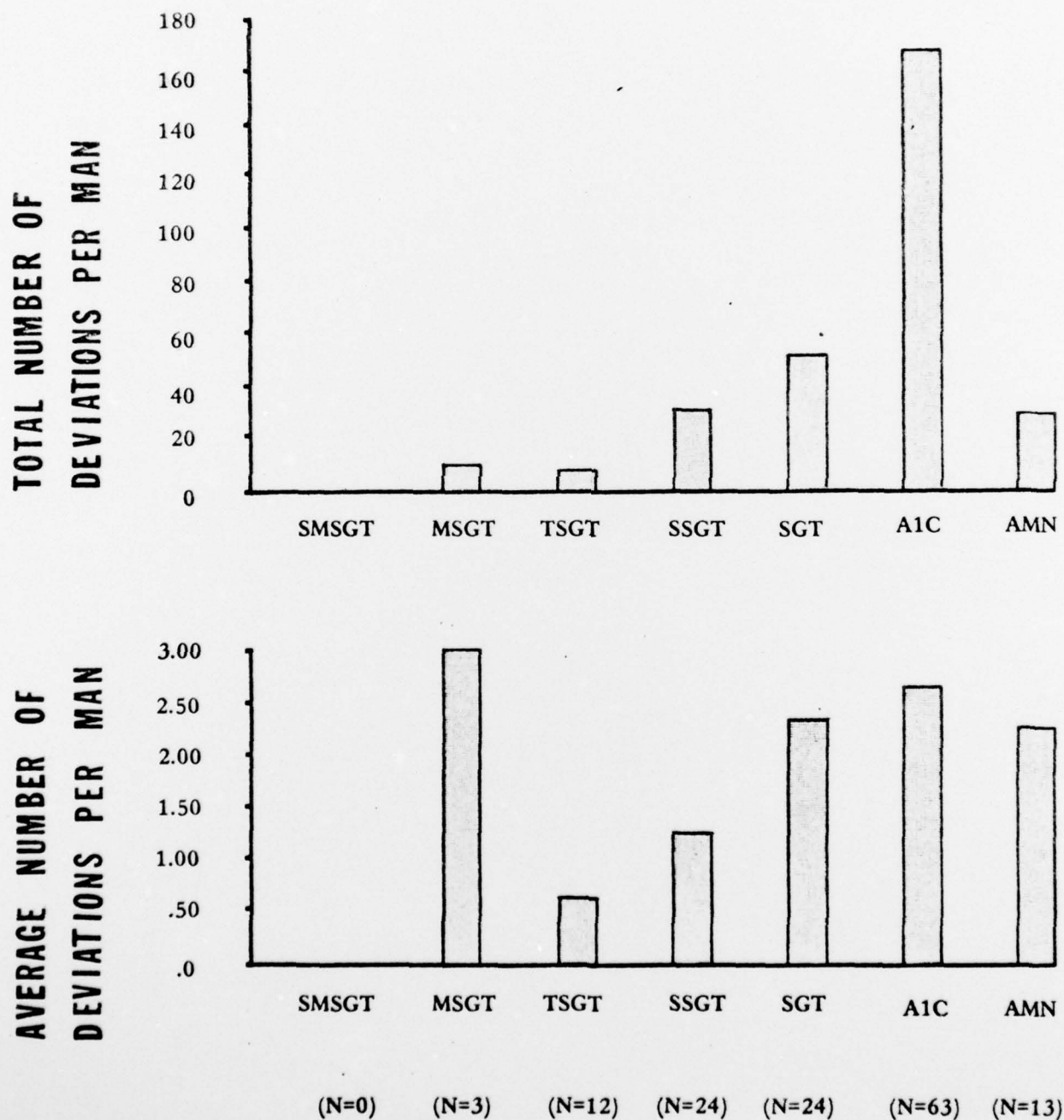
# PERCEPTION OF JOB CAPABILITY (PDQ)



## MEASURE OF ORGANIZATIONAL STRUCTURE (MOS)



## MEASURE OF ORGANIZATIONAL STRUCTURE (MOS)





# MEASURE OF ORGANIZATIONAL STRUCTURE (MOS)

Men Most Often Deleted

(Deleted : Added)

	<u>Absolute Ratio</u>		<u>Relative Ratio</u>
Superintendent	54:9	=	6:1
Commander	45:16	=	3:1
NCOIC - Weapons Systems	30:6	=	5:1
OIC - Operations	16:9	=	2:1

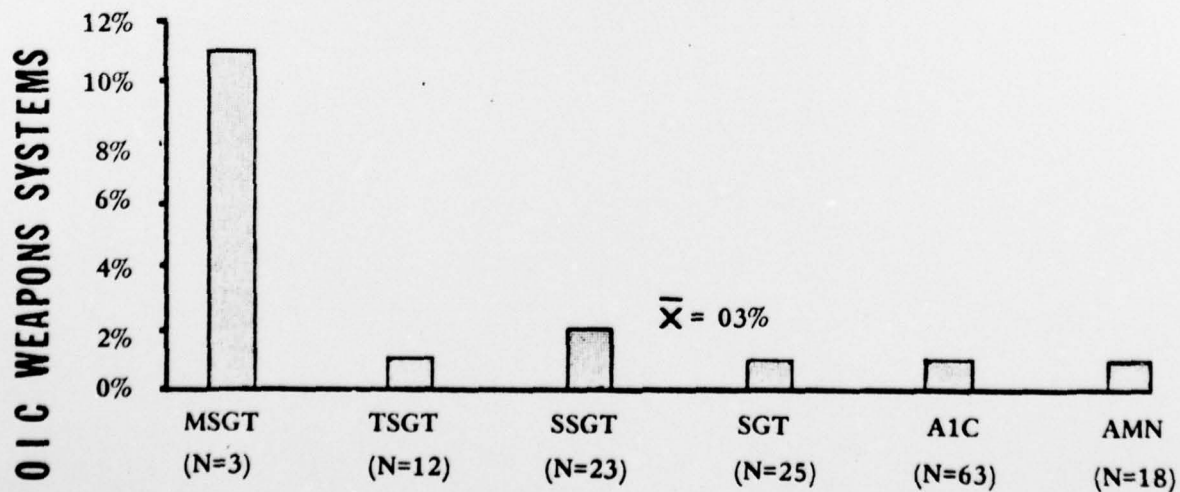
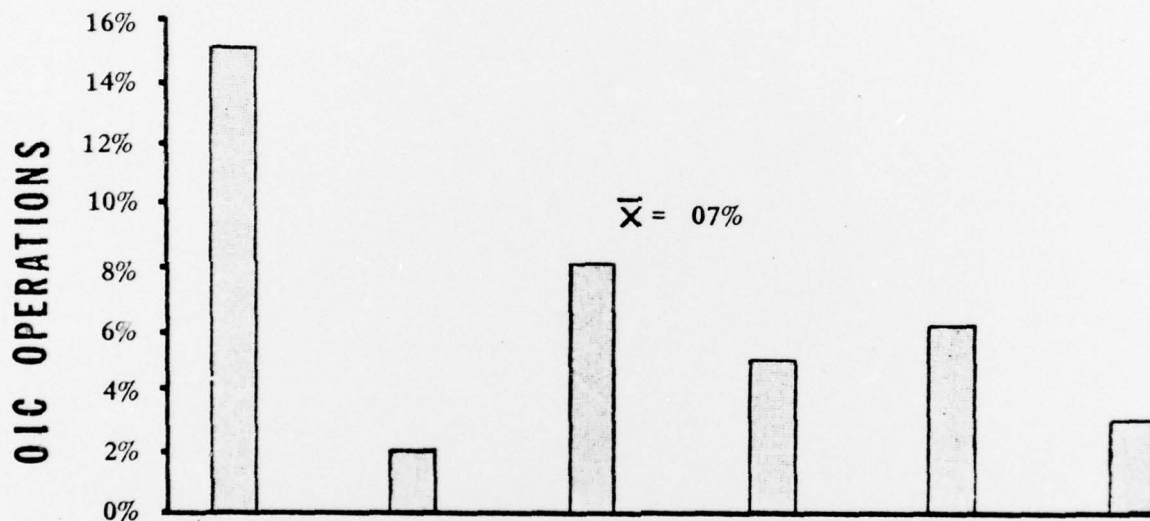
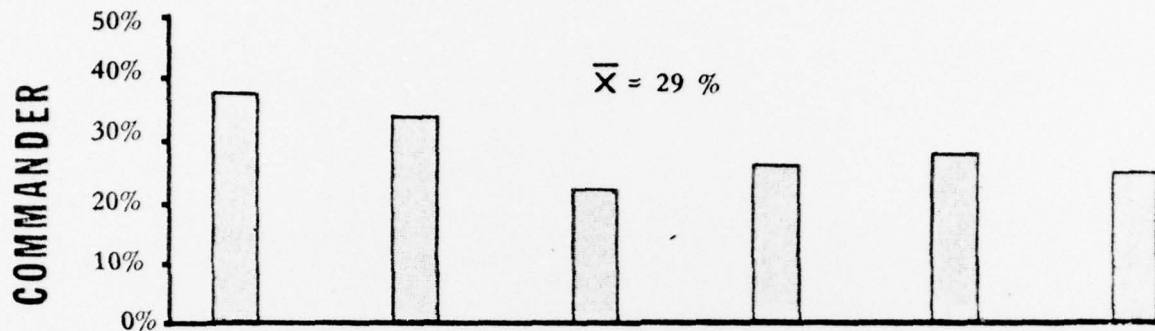
Men Most Often Added

(Added : Deleted)

	<u>Absolute Ratio</u>		<u>Relative Ratio</u>
First Sergeant	26:14	=	2:1
OIC - Weapons Systems	18:9	=	2:1
TSGT	17:15	=	1:1
SSGT	16:1	=	16:1
SSGT	12:3	=	4:1

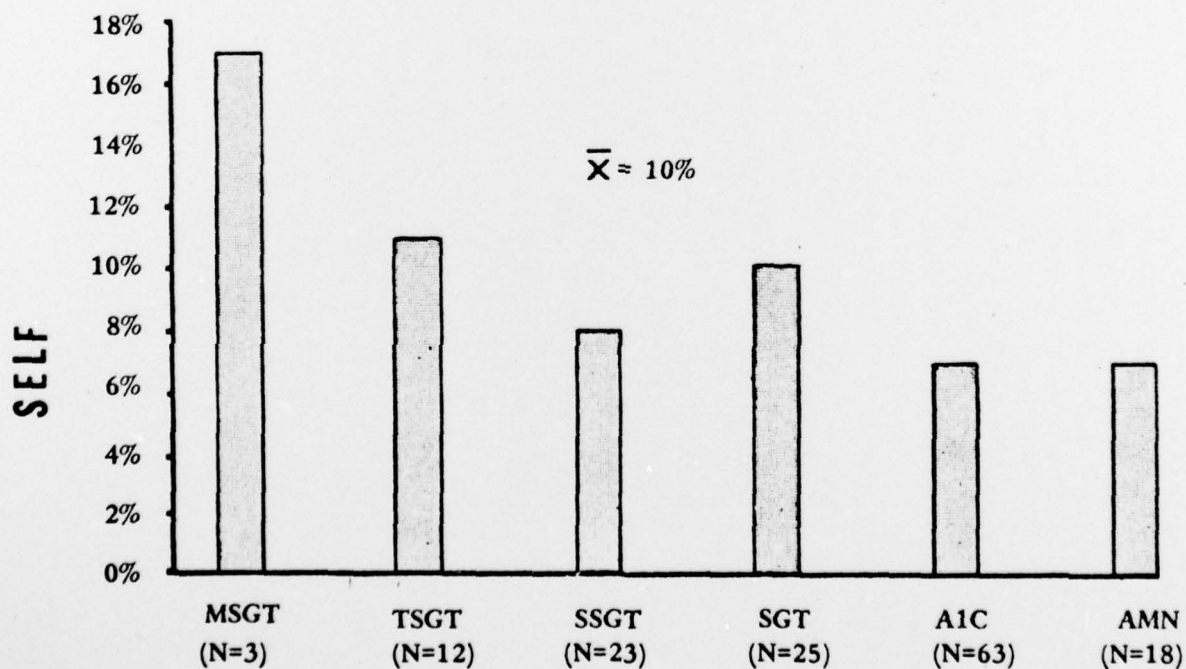
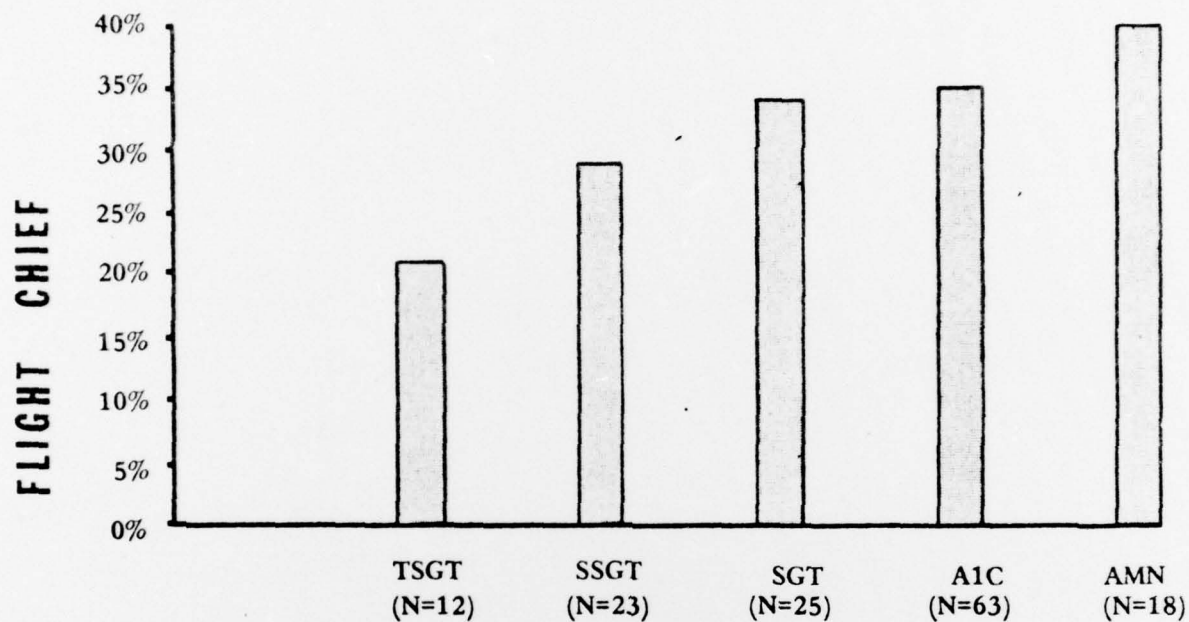


# DMQ SQUADRON - RESPONSES MOST OFTEN CHOSEN BY RANK

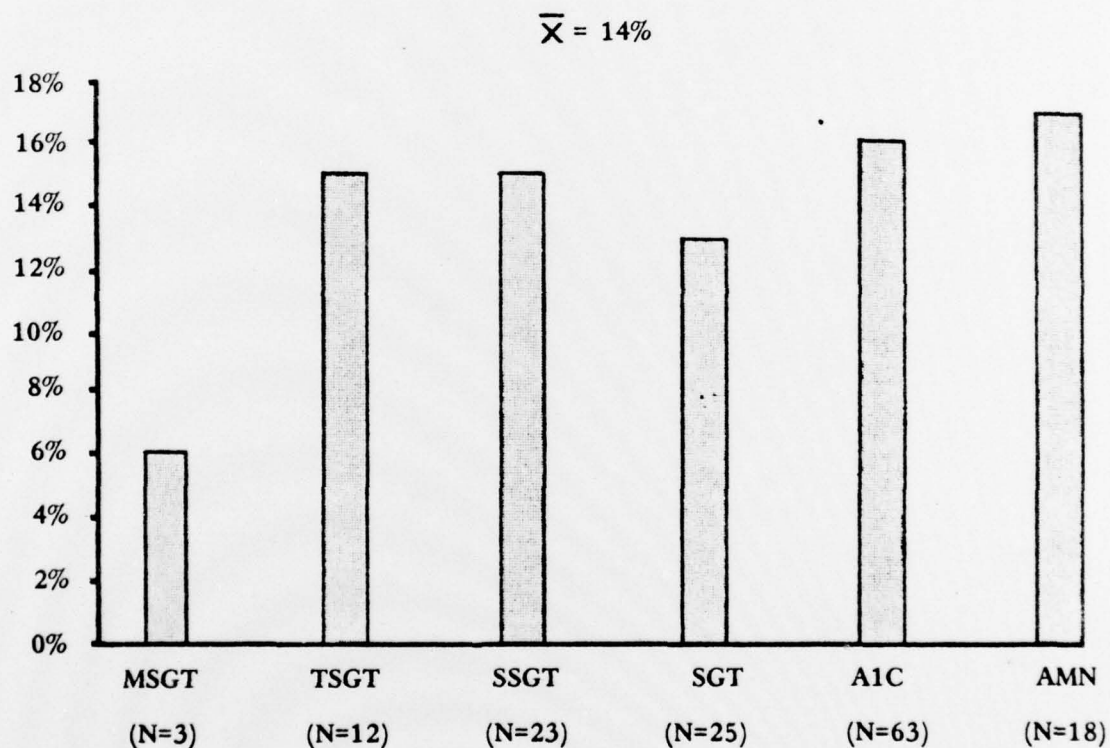


# DMQ SQUADRON - RESPONSES MOST OFTEN CHOSEN BY RANK

$\bar{X} = 32\%$   
(Less MSGT)



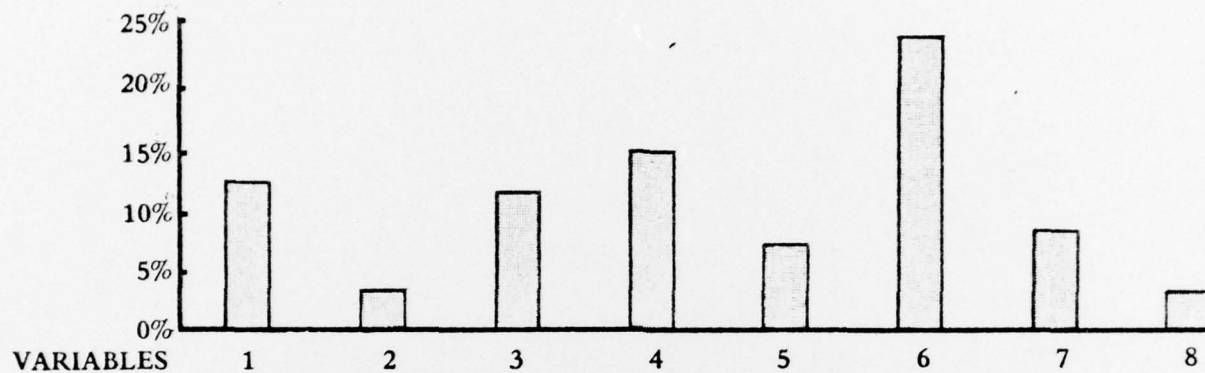
# DMQ SQUADRON - RESPONSES MOST OFTEN CHOSEN BY RANK FIRST SERGEANT



# DMQ PERSONS OUTSIDE OF COC

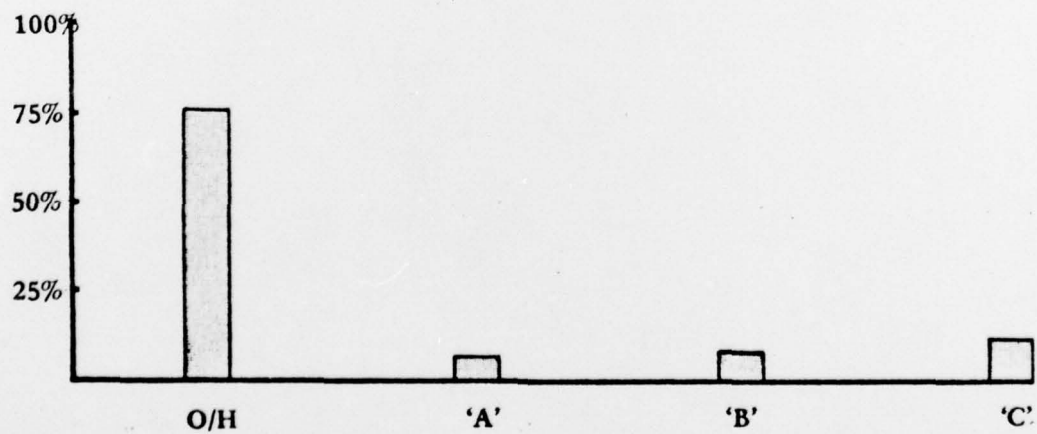
## MOST OFTEN CHOSEN

### TRAINING NCOIC



$$\bar{X} = 45\%$$

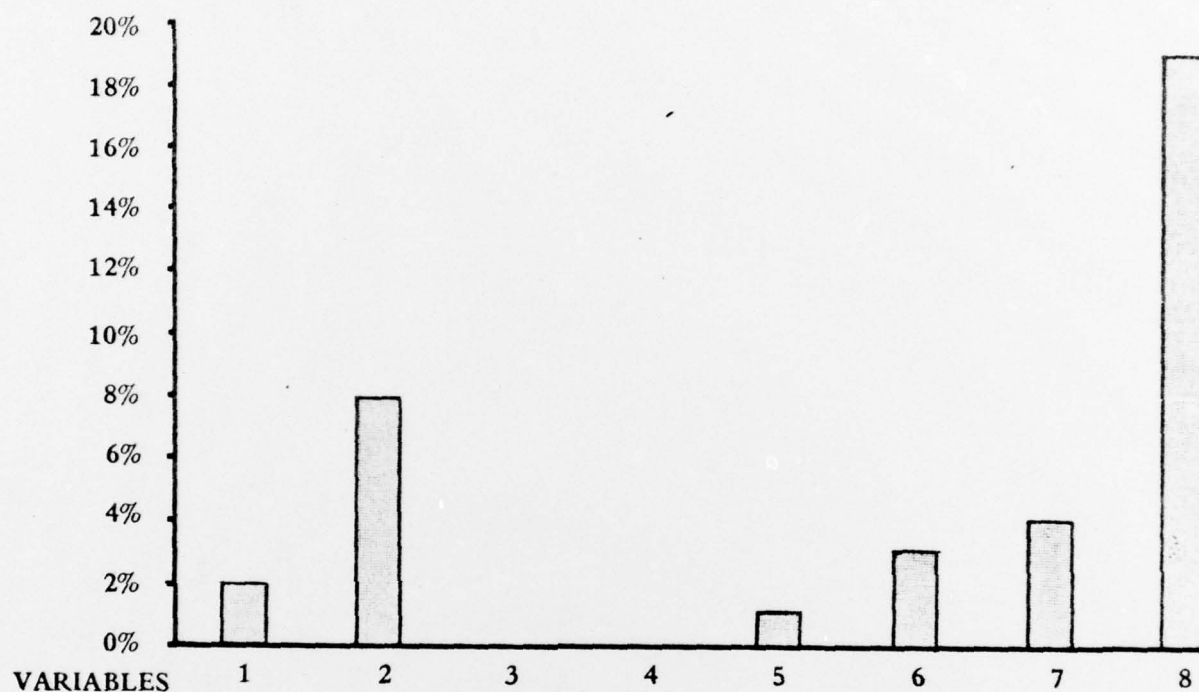
(N = 81)



# DMQ PERSONS OUTSIDE OF COC

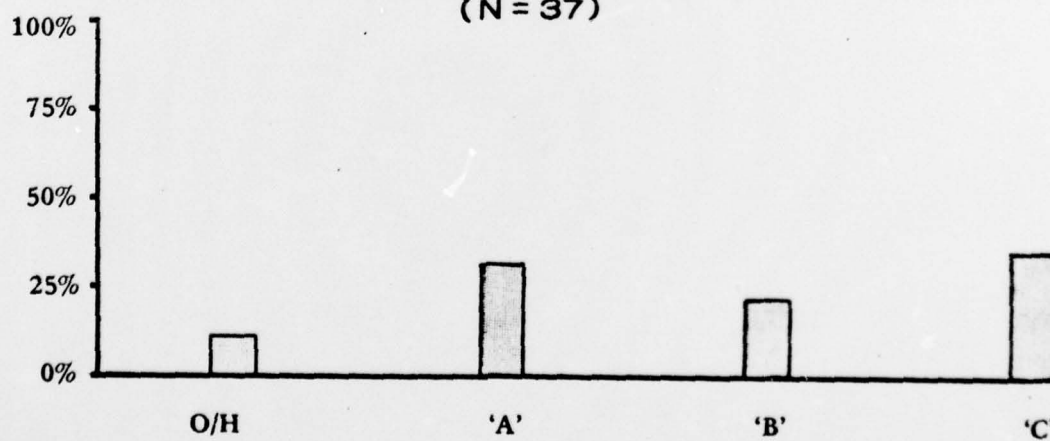
## MOST OFTEN CHOSEN

RETENTION NCO



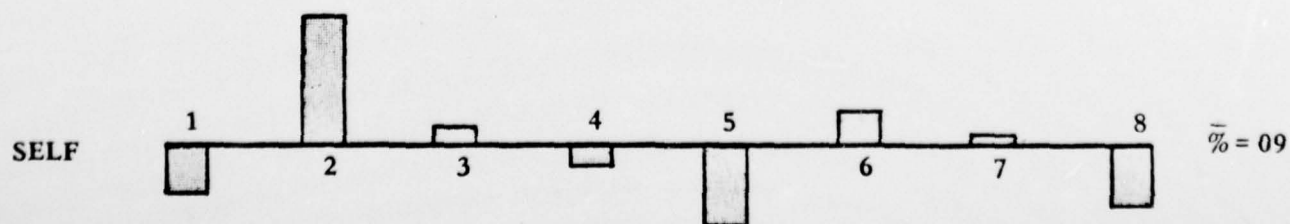
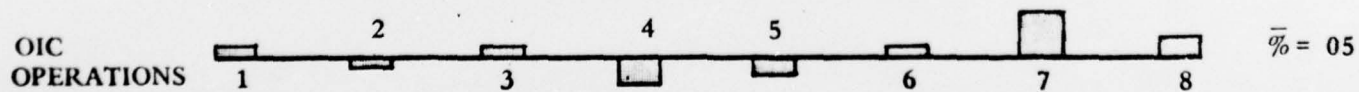
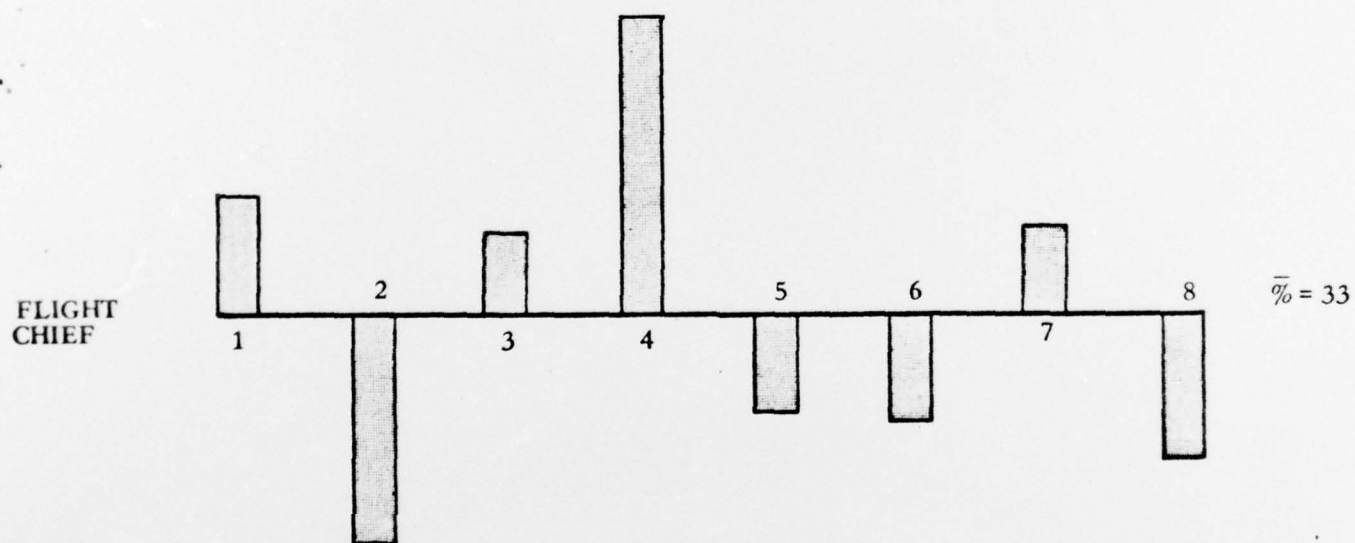
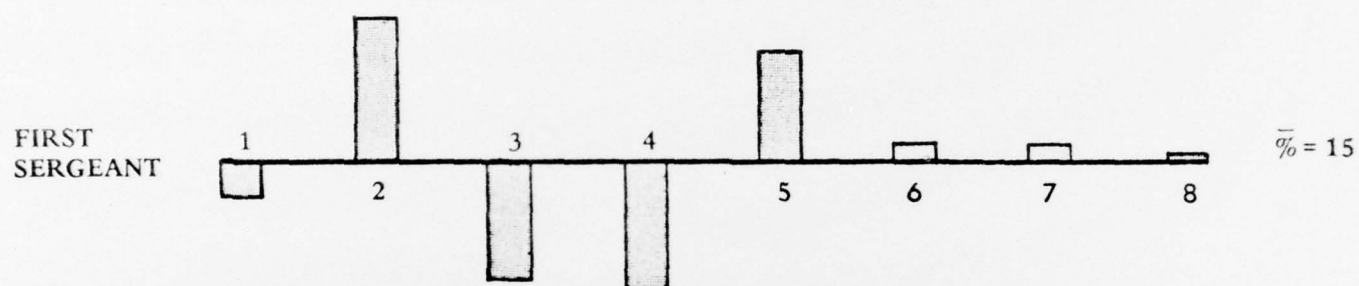
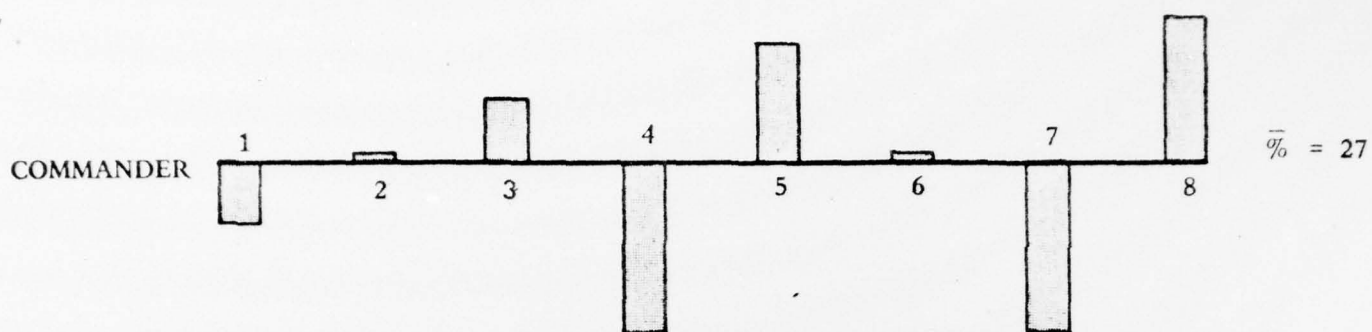
$\bar{X} = 21\%$

(N = 37)





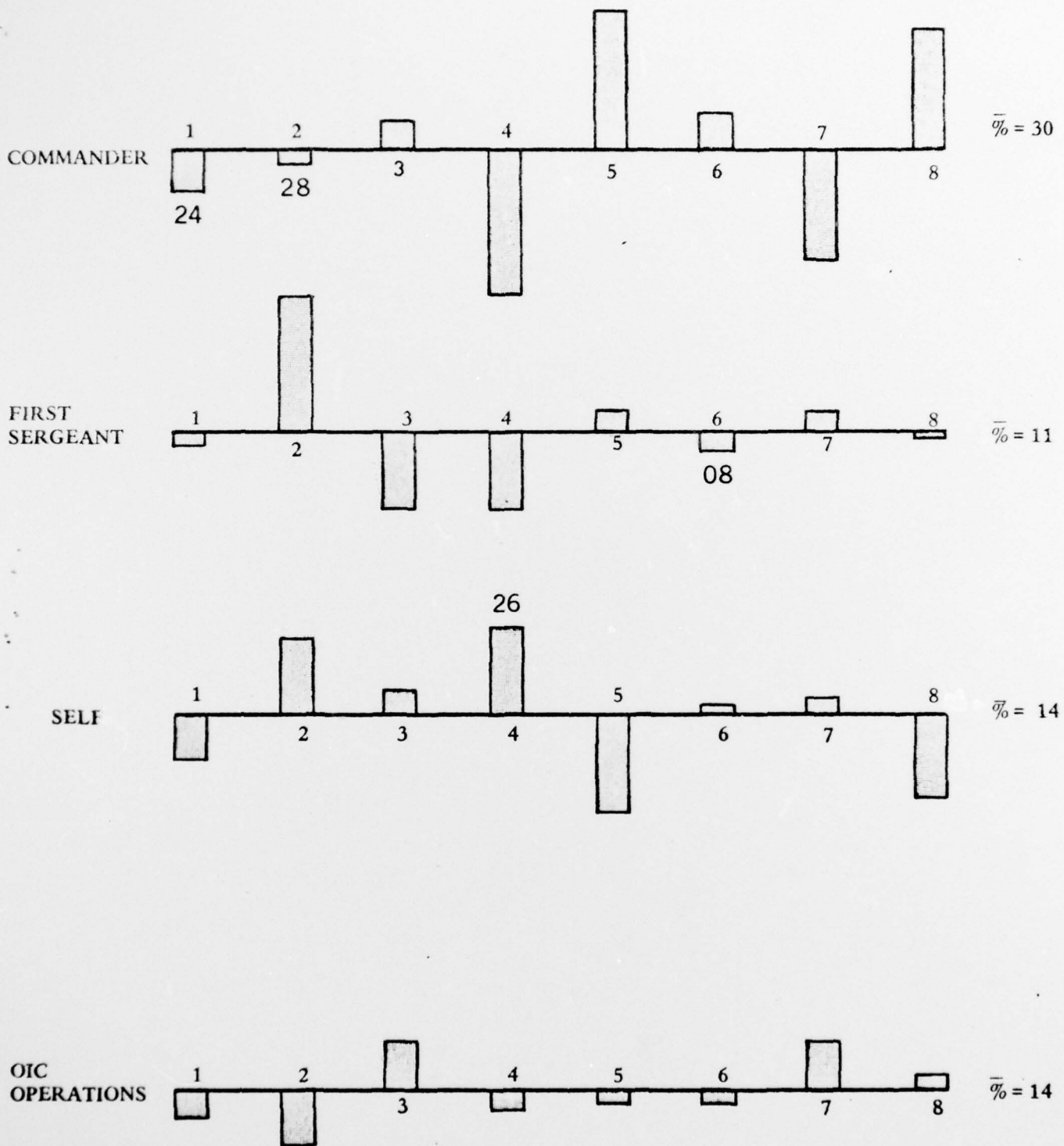
# DECISION MAKING QUESTIONNAIRE SQUADRON



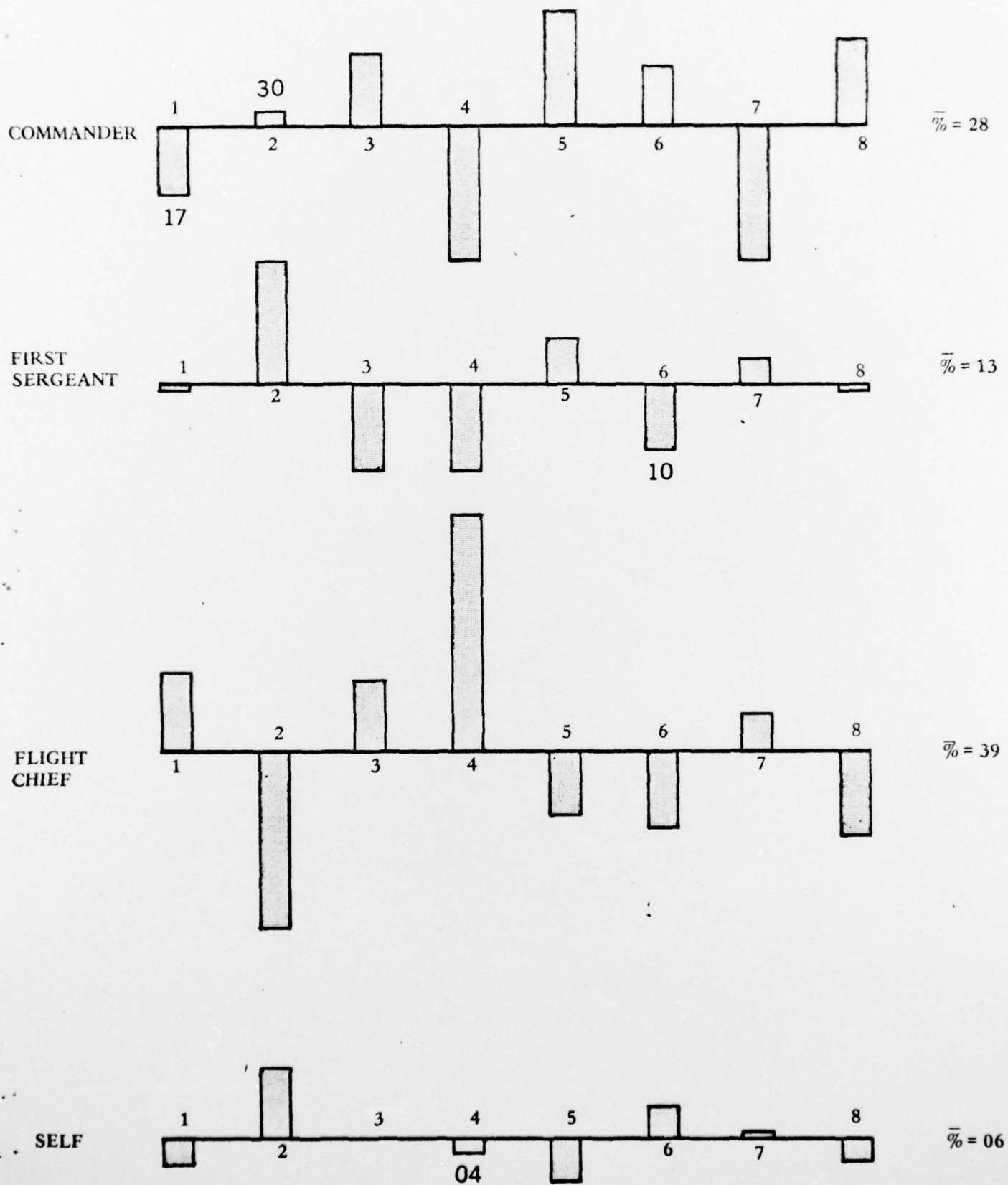


# DECISION MAKING QUESTIONNAIRE OVERHEAD SECTION •

22

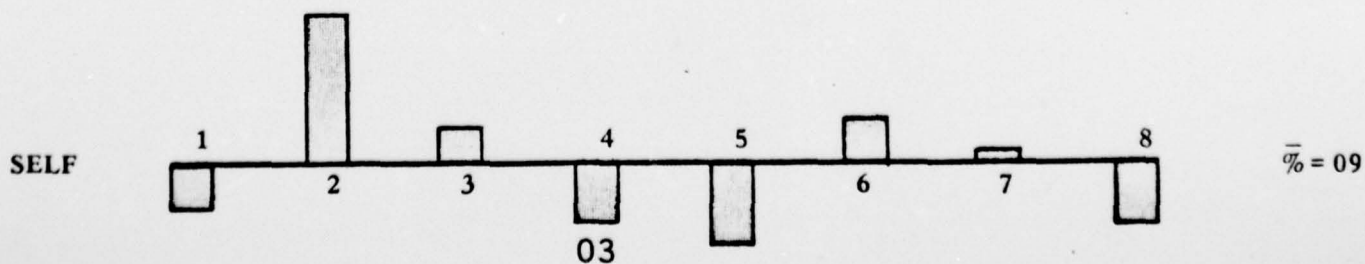
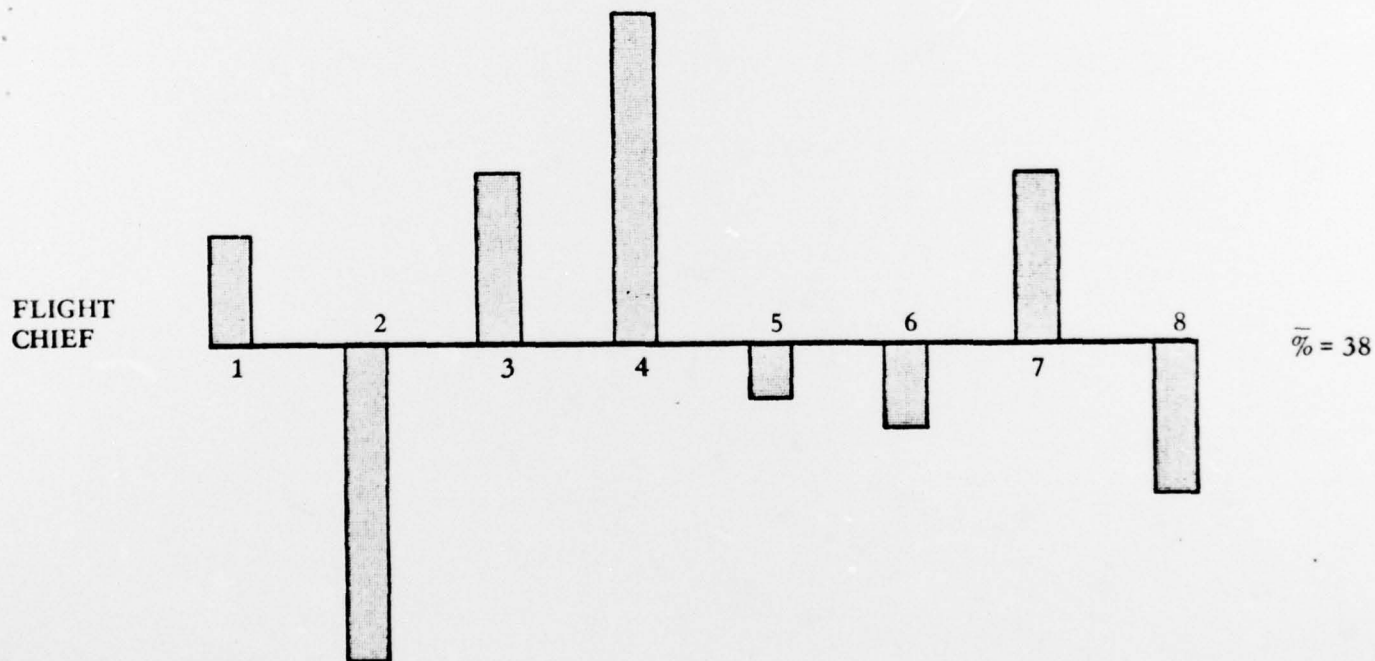
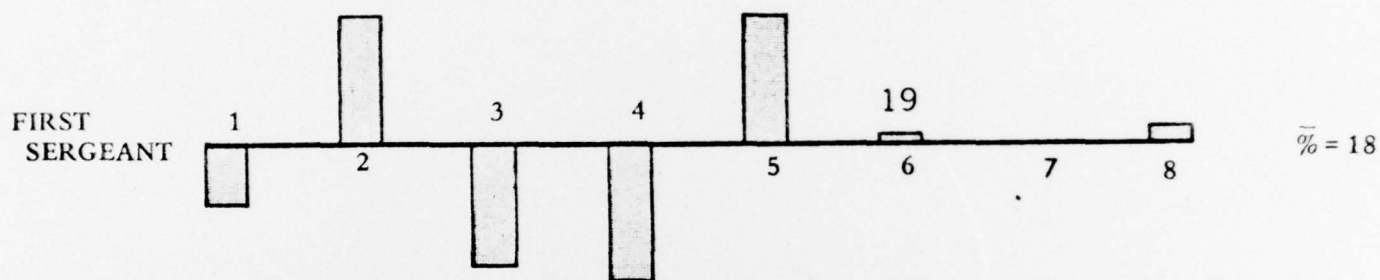
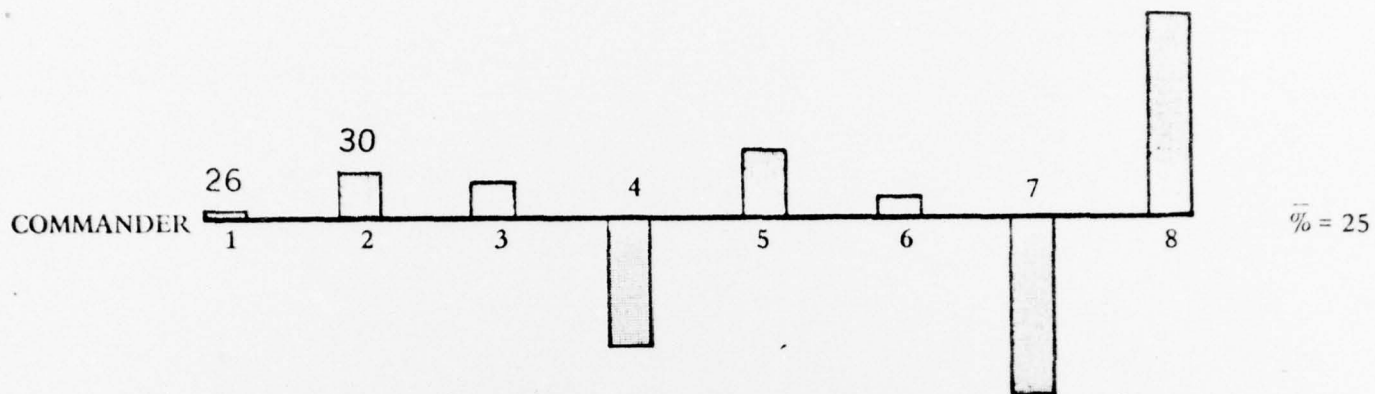


# DECISION MAKING QUESTIONNAIRE "A" FLIGHT



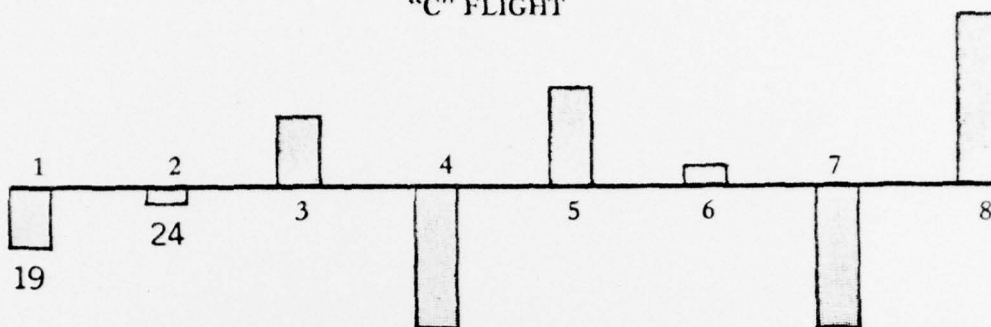
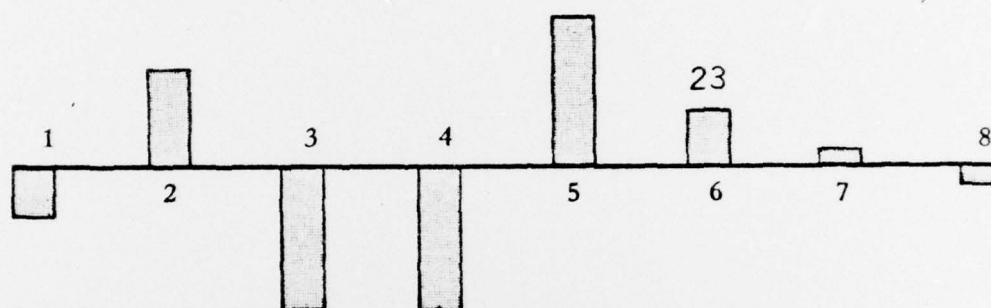
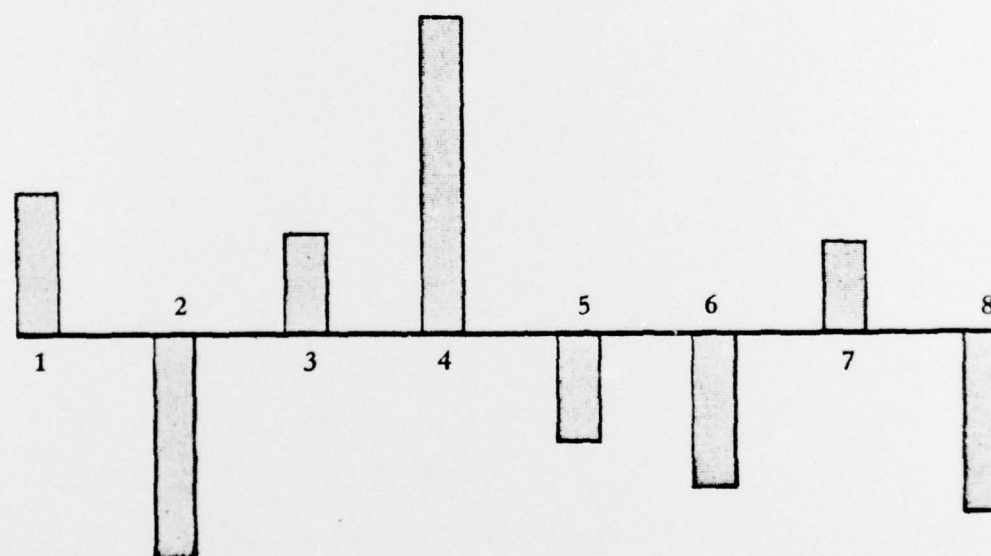
# DECISION MAKING QUESTIONNAIRE "B" FLIGHT

24

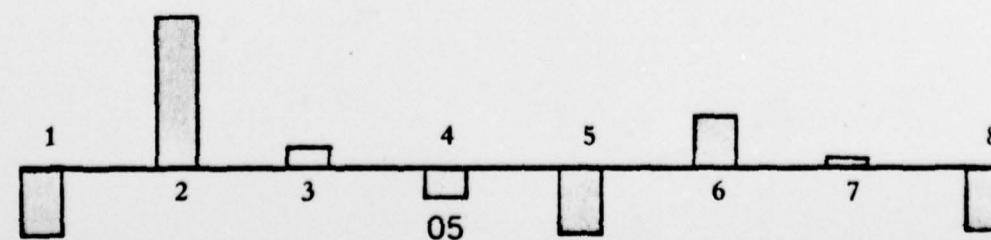


# DECISION MAKING QUESTIONNAIRE "C" FLIGHT

COMMANDER

 $\bar{x} = 26$ FIRST  
SERGEANT $\bar{x} = 17$ FLIGHT  
CHIEF $\bar{x} = 35$ 

SELF

 $\bar{x} = 09$

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